Atlantic TECHNOLOGY

Instruction Manual

System 350 THX® High Performance Home Theater Loudspeaker System

Models
351 LR
353 C
354 SR

System 350 THX

High Performance Home Theater Loudspeaker System

Congratulations on choosing Atlantic Technology Home Theater Components. The System 350 THX is engineered to bring you as close as possible to the acoustic environment of the finest THX theaters. When properly set up and balanced, the Atlantic Technology THX speaker system, coupled with THX ancillary components, allows you to fully experience movies at home the way filmmakers intended.

Conventional high fidelity loudspeaker systems, even very expensive ones, are not ideally suited to the demands of multichannel movie soundtracks. In order for the speakers to accurately reproduce what the film director created on the dubbing stage, they must meet specific design parameters developed by the motion picture industry. To achieve this, George Lucas and Lucasfilm originated and perfected Home THX, a strict set of standards and guidelines for home theaters, so that they may emulate the original dubbing stage. When properly followed, these guidelines address and correct the problems of overly bright or harsh soundtracks, unintelligible dialog, and poor localization of sounds. With Atlantic Technology's System 350 High Performance THX Home Theater Loudspeakers you will experience all the impact, full frequency response, and enveloping soundfield of your favorite films for the first time.

The **Model 351 LR Front Channel Speakers** incorporate two 5-3/4" polypropylene woofers in a D'Appolito configuration with two 3" midrange drivers and a 1" ferrofluid-cooled fabric dome neodymium tweeter in a separate sub-enclosure. The crossover is a premium fourth-order design with a conjugate network. Gold 5-way binding posts are provided to ensure easy connection with a wide variety of speaker cables. The tall, narrow dimensions of the cabinet, together with the driver configuration, optimizes horizontal dispersion and vertical directivity so important to the proper reproduction of the soundstage.

The **Model 353 C Center Channel Speaker** features the same driver complement, crossover, and cabinet volume as the 351 LR making left to center to right pans virtually seamless. The horizontal dispersion and vertical directivity characteristics of the speaker are maintained by using a D'Appolito configuration of two 3" midranges and 1" tweeter identical to the 351 LR. A tiltable base was developed to provide a variety of placement options either above or below the picture source without compromising performance.

The **Model 354 SR Surround Speakers** feature a triangular cabinet design providing a superior surround field compared to standard dipole or bipole surround speaker configurations. Our proprietary TwinPolar™ driver array provides exceedingly wide dispersion without the dipole "dead spots" so common with other designs. The 354 SR features two 4" polypropylene woofers and two 3/4" mylar dome tweeters to handle the full dynamic range and bandwidth of any existing or newly emerging surround sound technology. A second-order premium crossover and gold 5-way binding posts insure signal integrity.

The **Model 352 PBM Powered Subwoofer** utilizes a new generation of subwoofer amplifier specifically designed to deliver very high output on a continuous basis, with no danger of overload or distortion. The high excursion 12" woofer and sealed acoustic suspension cabinet configuration allow for extended, deep bass in a relatively compact, room-friendly design. The prodigious amounts of low frequency energy required for proper THX operation and the demands of high performance home theater applications in general are easily met with the 352 PBM. (Operation and placement of the Model 352 PBM is covered in a separate manual.)

Important: *Two 352 PBM Subwoofers are required for proper THX performance. The use of two subwoofers provides the most installation flexibility, tends to smooth bass response, and supplies higher sound pressure levels with ease.*

Connection

We recommend that you connect your new System 350 THX speaker components using high quality wire of 16 gauge or larger for lengths up to 25 feet. There are many manufacturers who specialize in speaker wire and interconnects suitable for your new system. We recommend that you consult your local audio/video specialist for more specific information.

Warning: *To prevent risk of electrical shock or damage to your equipment, always unplug all component AC cords before proceeding with speaker and component connections.*

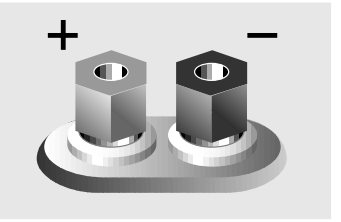


Figure 1: *Speaker Wiring Terminals*

You can connect your System 350 THX speakers by using spade lugs or "banana" connectors, or by removing 1/2" of insulation from each wire end, twisting the strands of wire together, placing the wire through one of the post holes and screwing down the nut tightly.

It is important to observe polarity while making speaker connections: red (+) terminals on the amplifier to red (+) on the speaker, black (-) on the amplifier to black (-) on the speaker. Look carefully at the wires you are using

and note that one of the wires in each pair is marked by either a different color, printing, ridges, or a thread intertwined with the wire strands. By convention, the marked wire is connected to the red (+) terminal.

Whether your are connecting a complete System 350 THX, or adding one speaker component to your present system, the wiring should look like the diagram in Figure 2. Before turning on the amplifier, be certain that no stray wire strands are touching across the two terminals as this might damage your amplifier.

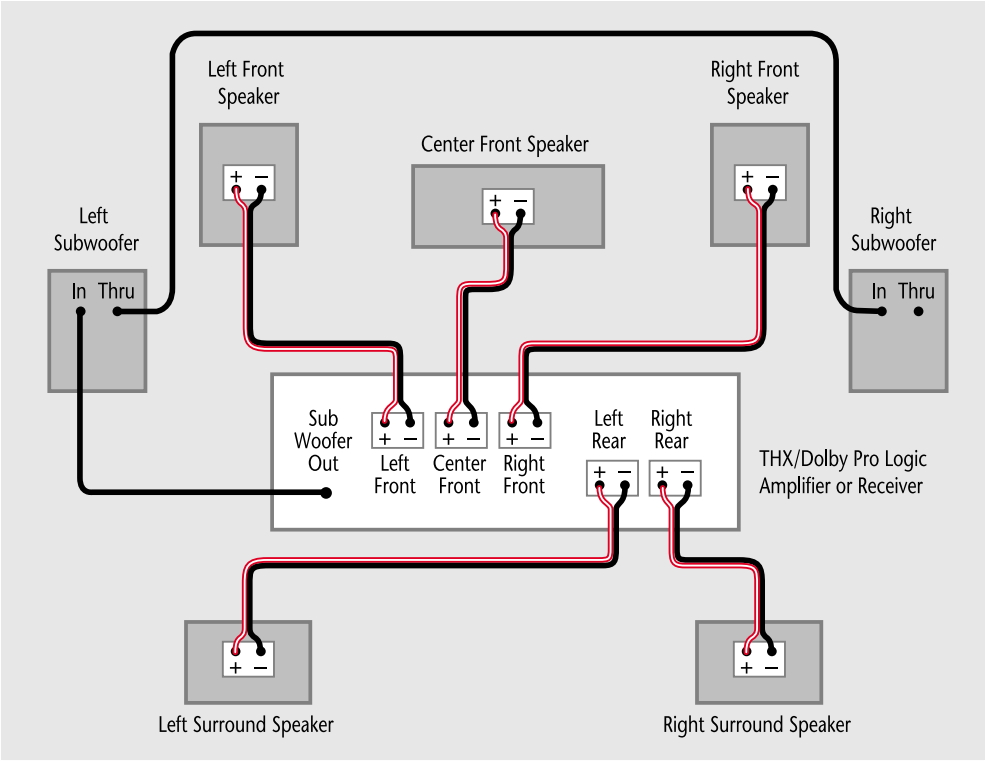


Figure 2: *Typical wiring diagram for speakers in a home theater. Note that two 352 PBM Subwoofers are shown in this diagram in order to conform with THX specifications. Please consult the 352 PBM Owner's Manual for more detailed information.*

Finally, check the polarity of your front speakers by listening to some music. If the sound seems hollow, spread out and has weak bass, recheck your connections for proper polarity and reverse the connections if necessary.

Placement

The design of the System 350 THX provides a large, seamless, acoustically accurate soundfield when combined with quality THX components to make a complete audio/video system. However, certain guidelines must be followed to obtain optimum performance. Use the following placement guidelines and Figure 3 as a starting point.

THX Home Theater

Position the **Model 351 LR Front Speakers** vertically to the left and right of the screen. For optimum performance, the height of the speakers should place the tweeters at ear level when you are in a seated position. All of the System 350 THX speakers are magnetically shielded and will not interfere with the video image. The left front and right front speakers should be far enough apart that you get a good stereo image, but not so far apart that the sound seems distant and distracting. Avoid placing the speakers too close to a corner and try to maintain an equal distance from the screen.

The **Model 353 C Center Channel Speaker** should be placed horizontally on its base between the left and right front speakers and above or below the screen. Tilt the speaker on its adjustable base to direct the sound toward the listening position. Ideally, the center channel speaker should be placed within two feet of the axis of the front channel tweeters. This placement is less important because of the directability of the 353 C on its tiltable base.

The **Model 354 SR Surround Speakers** should be placed at the sides of the room with the null (the point between the two sets of drivers) of the speakers pointed at the listening position. Height of the surrounds should be between ear level and two feet above ear level, or on the optional pedestal stands. If there is more than one row of seats, the surround speakers should be at the sides of the room at the geometrical center of the seating positions. Due to the extremely wide dispersion design of the 354 SR, the speaker will perform well outside of the shaded area shown below. This illustration shows the ideal speaker placement for maximum performance of the system.

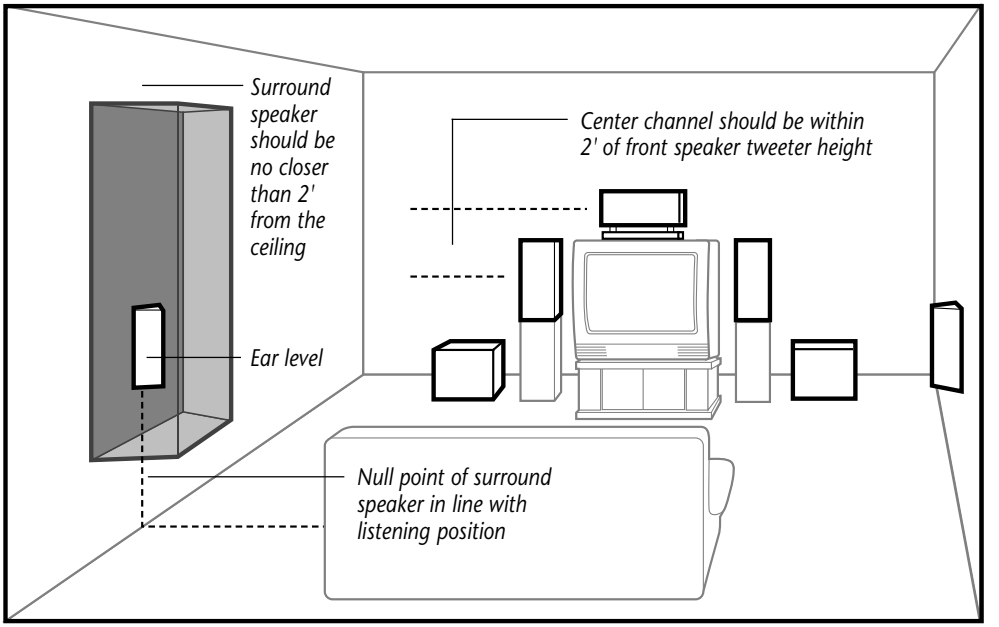


Figure 3: *Typical arrangement for speakers in a THX home theater. For best results, place the surround speakers within the shaded areas.*

Mounting

The Model 351 LR and the 354 SR speakers can be mounted in a variety of ways:

On the wall. To flush mount your speakers on the wall, we have installed steel keyhole brackets on the back panel of the cabinet, spaced 12" (305mm) apart. Simply place the opening of the bracket over suitably secured wall anchors (such as molly-bolts), or screws driven into wall studs. Remember to mount the speakers so that the tweeters are at ear level.

On optional pedestal stands. The pedestal stands are provided with complete instructions and all necessary hardware. These stands position the speakers at the proper height, allow placement flexibility, and provide a stable base for a variety of floor surfaces, including deep pile carpeting. Please consult your dealer or call Atlantic Technology direct for additional information.

Listening Levels and Power Handling

The power recommendation for these speaker components assumes that you will not operate your amplifier/receiver in a way that produces distortion. Even rugged speakers like System 350 THX can be damaged by a moderately powered system driven beyond its intended capacity. The harsh amplifier clipping that occurs in this situation will cause damage to the speaker system that is not covered by the warranty.

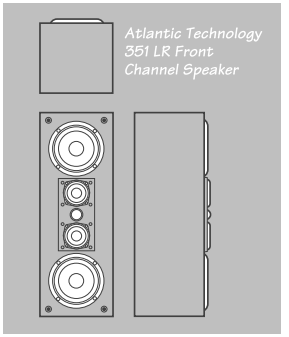
The System 350 THX will play very loudly when provided with enough power to do so. Again, consult your dealer or Atlantic Technology for additional information.

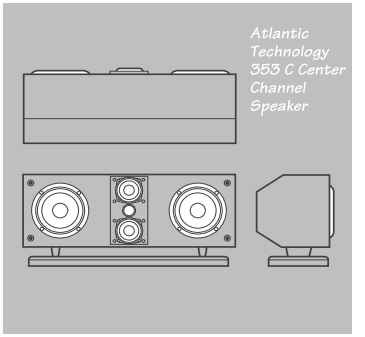
Care of your Speakers

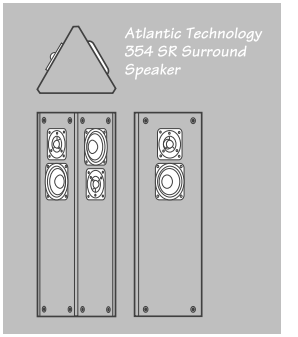
Clean your speaker cabinets using a soft cloth moistened with a mild, non-abrasive glass cleaner being careful not to wet the individual drivers or the edges of the cabinet. After carefully removing the grilles from the speakers, clean them with a quick pass from a vacuum cleaner with a brush attachment. This should remove any dust accumulation.

Avoid placing your speakers in direct sunlight that may, over time, fade the finish.

System 350 Specifications







Description	***351 LR***	***353 C***	***354 SR***
Type	Sealed-box, 3-way D'Appolito	Sealed-box, 3-way, D'Appolito	Sealed-box, TwinPolar™ (V-pole) spatially-enhanced
Drivers	(2) 5-3/4" polypropylene woofer (2) 3" composite cone midrange (1) 1" cloth dome tweeter	(2) 5-3/4" polypropylene woofer (2) 3" composite cone midrange (1) 1" cloth dome tweeter	(2) 4" polypropylene woofer (2) 3/4" mylar dome tweeter
Frequency Response (±3dB)	80Hz – 20kHz	80Hz – 20kHz	100Hz – 20kHz
Nominal Impedance	4Ω	4Ω	4Ω
Sensitivity	90dB	90dB	90dB
Recommended Amplifier Power	50 – 150W	50 – 150W	50 – 150W
Size (W x H x D)	7.6 x 23.0 x 11.7in 192 x 585 x 297mm	25.9 x 8.5 x 10.5in (9.9 h with base) 657 x 217 x 266mm (251 h with base)	8.5 x 23.0 x 6.5in 215 x 585 x 166mm
Weight (each)	26.75lbs 12.16kg	25.9lbs (30.55lbs with base) 11.77kg (13.89kg with base)	13.35lbs 6.07kg
Magnetic Shielding	Yes	Yes	Yes

Specifications are those in effect at the time of printing. Atlantic Technology reserves the right to change specifications or designs at any time without notice.

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For Future Reference

Record your speaker(s) serial number(s) and date of purchase here:

Model Number	Serial Number	Date of Purchase
Model Number	Serial Number	Date of Purchase
Model Number	Serial Number	Date of Purchase

The serial number is found on the back of the speaker near the connecting terminals.

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